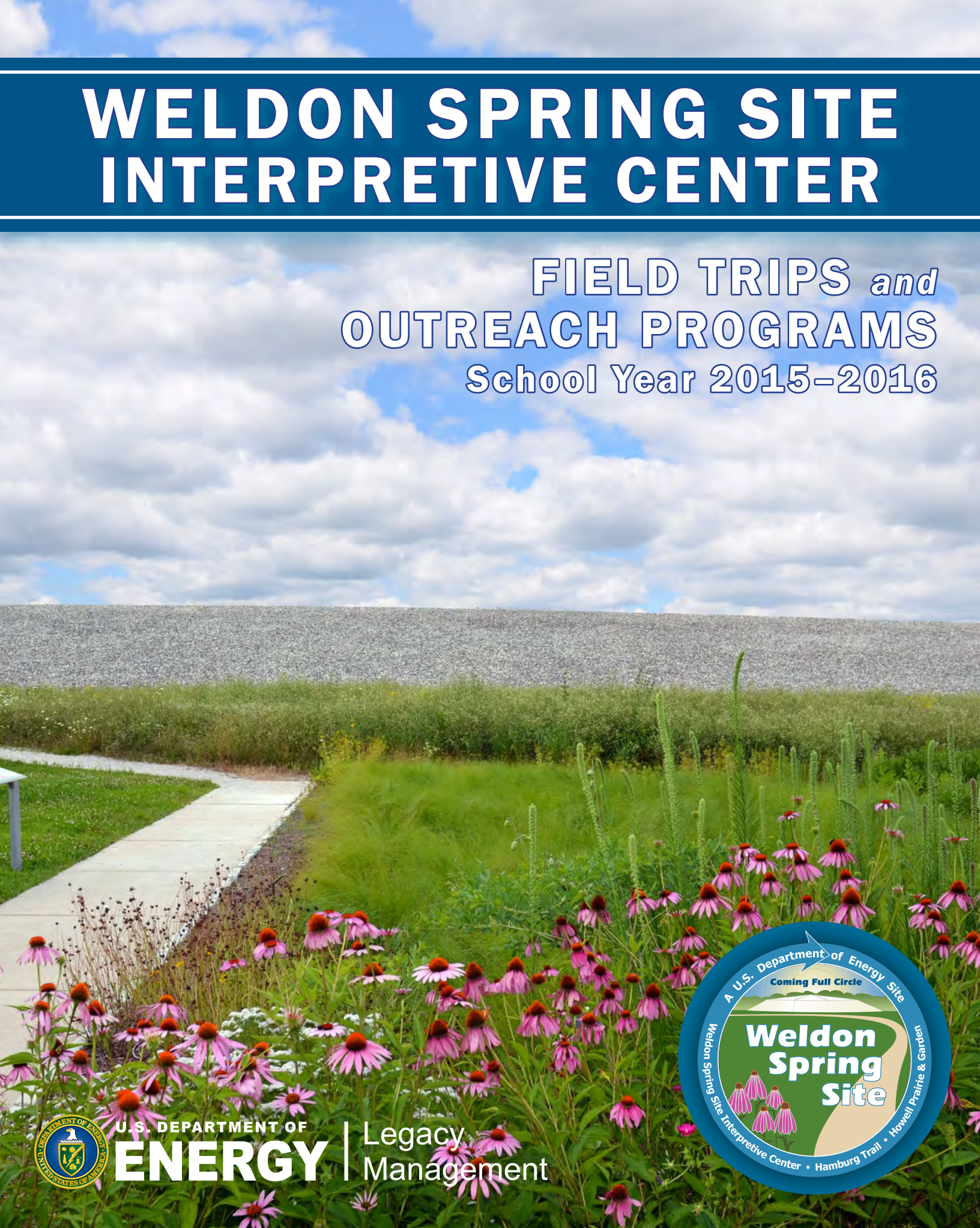
WELDON SPRING SITE INTERPRETIVE CENTER

FIELD TRIPS *and* OUTREACH PROGRAMS

School Year 2015–2016



U.S. DEPARTMENT OF ENERGY | Legacy Management

A U.S. Department of Energy Site
Coming Full Circle
Weldon Spring Site
Weldon Spring Site Interpretive Center • Hamburg Trail • Howell Prairie & Garden

Connecting lessons from the past with a vision for the future

About Our Staff

The Weldon Spring Site interpretive staff is proud to have trained and achieved the Certified Interpretive Guide, professional level certification through the National Association for Interpretation (NAI).

Field Trips and Outreach Programs Requests

- All reservations will be confirmed by staff and supplemented with an agenda, logistics, and any special instructions.
- Groups may request multiple field trips and program experiences in a single school year. Simply include the details of each in the *Field Trip and Program Request* form.
- Times are flexible depending on your travel needs and class times.
- High school and college-level field trips and programs are available. We'll work directly with you to cater an event specific to your needs.
- All of our programs are provided at no cost, thanks to support from U.S. Department of Energy Office of Legacy Management.

Request Process

- Complete the ***Field Trips and Outreach Programs Request Form, School Year 2015–2016***
- Submit via email, phone, or mail:
  – Email: WSInterpretiveCenter@lm.doe.gov
  – Phone: (636) 300-2601
  – Mail: 7295 Highway 94 South, St. Charles, MO 63304

Field Trips to the Weldon Spring Site

- Groups must provide their own transportation to and from the Weldon Spring Site.
- Group sizes of 10 to 130 are allowed each day of programming. Consecutive days can be scheduled to serve larger groups.
- Large groups are split into two or three classes that rotate through each activity. Group numbers and sizes will be indicated in your confirmation letter.
- Indoor and outdoor lunch space is available (e.g., picnic tables and grass lawn).
  – We provide recycling and waste bins. Please recycle as much as possible.
- Bus and vehicle parking is adjacent to the Interpretive Center.

Outreach Programs

- Outreach program staff will travel to your location at no cost to your school.
- Please provide one location that will accommodate the number of students attending the program, and class rotation.
- Your confirmation letter will specify details of the program.

Driving Directions

- *The Weldon Spring Site is located in southwestern St. Charles County, Missouri, approximately 35 miles west of St. Louis. From I-64/Highway 40/61, or I-70, exit at Highway 94 and continue south toward Defiance.*

Weldon Spring Site
U.S. Department of Energy
Office of Legacy Management
7295 Highway 94 South
St. Charles, MO 63304

(636) 300-2600
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Thematic Field Trips

Typical Weldon Spring Site thematic field trips are approximately 3 hours long, but we are very flexible and can customize the programs to work with your schedule. Groups rotate among several educational activities connected to a central theme.

Life Cycles Come Full Cycle

Grades: K–3
Setting: Indoor and Outdoor
Seasonal: August through October/April through May
Rotations: Insect Life Cycles, Insect Field Study, Insects at the Cell–Disposal Cell Hike
Key Content: Metamorphosis, habitat, insects

Discover the exciting life cycles of insects that call the Howell Prairie home. Butterflies, grasshoppers, beetles, and all insects need a home to survive. Explore different life cycles and the prairie that insects depend on.

Fun with Science

Grades: 2–4
Setting: Indoor and Outdoor
Rotations: States of Matter, Water Cycle, Disposal Cell Hike
Key Content: States of matter, evaporation, transpiration, precipitation, science

Become a scientist! Discover how molecules are arranged, how they behave, change, and combine. Dive into an exciting exploration of the water cycle and the world around us.

Food Chains and Food Webs of the Howell Prairie

Grades: 3–6
Setting: Indoor and Outdoor
Rotations: Food Chains and Food Webs, Field Study, Eyes of the Hawk–Disposal Cell Hike
Key Content: Food web, food chain, predator, prey, habitat

Explore the Howell Prairie and the struggle for survival among predator and prey. Discover the lives of animals in constant search of food, water, and shelter in the changing prairie habitat. The Howell Prairie was established for habitat restoration, but did we get it right? Are we able to support healthy food chains and food webs for animals?

(continued)

Thematic Field Trips (continued from page 3)

Typical Weldon Spring Site thematic field trips are approximately 3 hours long, but we are very flexible and can customize the programs to work with your schedule. Groups rotate among several educational activities connected to a central theme.

Science Investigations

Grades: **5–8**
Setting: **Indoor and Outdoor**
Rotations: **Water Investigations, Chemistry Studies, Disposal Cell Hike**
Key Content: **Chemistry, water quality, environmental contamination, investigation**

What's in your drinking water? How do science, chemistry, and investigations help protect human health and the environment? Step into the role of an environmental scientist to conduct chemistry experiments and investigate the water around us.

Create Your Own Field Trip

Each of the following Weldon Spring Site field trip sessions lasts 45 minutes to 1 hour, depending on your availability. Select one session or more for a customized, educational day. Students will rotate in groups among each session.

Disposal Cell Hike

Grades: **K–8**
Setting: **Outdoor**
Key Content: **History, engineering, design, safety**

Connect to lessons from the past and explore a modern engineering marvel. The 41-acre Disposal Cell hosts a 75-foot stairway climb to a viewing platform with panoramic views of the surrounding area. Discover why the Disposal Cell was constructed, the contents stored within, and learn about the long-term monitoring of an environmental cleanup site.

Butterfly Life Cycles

Grades: **K–3**
Setting: **Indoor and Outdoor**
Key Content: **Butterflies, metamorphosis, life cycles**

Discover the challenging life cycles of butterflies as they change from egg to larva, and adult through metamorphosis. Butterflies need healthy habitats for survival through all stages of their lives. Observe native butterflies, indoors and outdoors (depending on weather conditions).

(continued)

Create Your Own Field Trip (continued from page 4)

Each of the following Weldon Spring Site field trip sessions lasts 45 minutes to 1 hour, depending on your availability. Select one session or more for a customized, educational day. Students will rotate in groups among each session.

Soil Science!

Grades: K–3
Setting: Indoor
Key Content: Clay, silt, sand, soil particles, rock

Mucky, dirty, and cool! We need soil to grow our food and for critters to create homes. Dig in and get your hands dirty while you learn about different soil types and how we need healthy soils every day.

Recycling Works!

Grades: K–8
Setting: Indoor
Key Content: Grades 1–5: Sorting, environmental responsibility
Grades 6–8: Sorting, environmental ethics, material processing

Recycling is more important than ever! Learn how to decrease resource consumption, separate recyclable items from trash, and where it all goes once it's carried away.

Scavenger Hunt

Grades: K–8
Setting: Indoor
Key Content: History, environmental impacts, nature, engineering, design

Explore the interpretive exhibit hall. Discover the Weldon Spring Site history, cleanup, and restoration of the natural environment. Students will work in small teams to create models to further connect with the Weldon Spring Site.

Solids, Liquids, and Gases

Grades: 2–5
Setting: Indoor
Key Content: Solids, liquids, gases, volume, mixtures, solutions

States of matter ... matter! Chemists, engineers, and environmental scientists all need to understand how molecules are arranged, how they behave, change, and combine. Explore the physical properties of solids, liquids, and gases during an exciting exploration of the world around us.

(continued)

Create Your Own Field Trip (continued from page 5)

Each of the following Weldon Spring Site field trip sessions lasts 45 minutes to 1 hour, depending on your availability. Select one session or more for a customized, educational day. Students will rotate in groups through each session.

Rocks

Grades: **2–5**
Setting: **Indoor**
Key Content: **Rock types (igneous, metamorphic, sedimentary), erosion, formation**

Rocks reveal the history of our planet. They are continually eroding and forming beneath our feet, on tall mountain bluffs, and polished riverbeds. Discover how we depend on rocks in our homes, roadways, and daily lives.

Mapping Adventure

Grades: **3–8**
Setting: **Outdoor**
Key Content: **Map reading, navigation, teamwork, fun**

Build teamwork skills! Students are challenged with an outdoor, mapping scavenger hunt. Teams will locate several checkpoints around the Interpretive Center, native garden, and trails in a race to solve a mystery and finish the mapping challenge.

Subsurface Investigations

Grades: **5–8**
Setting: **Indoor**
Key Content: **Groundwater, aquifers, contamination, monitoring**

Where does your drinking water come from? Roadway oil, excess fertilizer, and other pollution sources can hide underground in the water we depend on. Study the environmental cleanup and existing conditions of the groundwater at the Weldon Spring Site.

(continued)

Create Your Own Field Trip (continued from page 6)

Each of the following Weldon Spring Site field trip sessions lasts 45 minutes to 1 hour, depending on your availability. Select one session or more for a customized, educational day. Students will rotate in groups through each session.

Weldon Spring Site Cleanup and Radiation Study

Grades: **5–8**
Setting: **Indoor**
Key Content: **WW II, Cold War, contamination, cleanup, radiation**

The Weldon Spring story began over 100 years ago. In the 1940s, prairies, farmland, and three towns were seized in the name of national defense. A TNT munitions plant was first constructed to support America's World War II efforts, and later, a uranium production plant operated during the Cold War. Learn about the site's contamination and environmental cleanup. Practice with Geiger counters to discover natural and man-made radiation sources.

Renewable Energy

Grades: **5–8**
Setting: **Outdoor**
Key Content: **Renewable resources, fossil fuels, electricity, volts, batteries**

Fossil fuels heat our homes and run our cars, but what about a future with all renewable energy sources? Experiment with solar panels and wind turbines to compare the power they can generate.

Outreach Programs

Each of the following programs can be provided at your school or group location.
Please refer to the Create Your Own Field Trip section for program descriptions.

Butterfly Life Cycles

Grades: K–3
Setting: Indoor
Key Content: Butterflies, metamorphosis, life cycles

Recycling Works!

Grades: K–8
Setting: Indoor
Key Content: Grades 1–5: Sorting, environmental responsibility
Grades 6–8: Sorting, environmental ethics, material processing

Solids, Liquids, and Gases

Grades: 2–5
Setting: Indoor
Key Content: Solids, liquids, gases, volume, mixtures, solutions

Please Note: This is a demonstration-only outreach program. Not all students will be able to conduct the experiments.

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Outreach Programs (continued from page 8)

Each of the following programs can be provided at your school or group location. Please refer to the Create Your Own Field Trip section for program descriptions.

Food Chains and Food Webs of the Howell Prairie

Grades: 3–6
Setting: Indoor
Key Content: Food web, food chain, predator, prey, habitat

Rocks

Grades: 2–5
Setting: Indoor
Key Content: Rock types (igneous, metamorphic, sedimentary), erosion, formation

Weldon Spring Site Cleanup and Radiation Study

Grades: 5–8
Setting: Indoor
Key Content: WW II, Cold War, contamination, cleanup, radiation

Renewable Energy

Grades: 5–8
Setting: Outdoor
Key Content: Renewable resources, fossil fuels, electricity, volts, batteries

Field Trips and Outreach Programs at a Glance

Field Trips and Outreach Programs	Grade Level										Indoor	Outdoor	Onsite Field Trip	Outreach Program
	K	1	2	3	4	5	6	7	8	HS				
Thematic Field Trips														
Life Cycles Come Full Cycle	✓	✓	✓	✓							✓	✓	✓	
Fun with Science			✓	✓	✓						✓	✓	✓	
Food Chains and Food Webs of the Howell Prairie				✓	✓	✓	✓				✓	✓	✓	
Science Investigations						✓	✓	✓	✓	✓	✓		✓	
Create Your Own Field Trips and Outreach Programs														
Disposal Cell Hike	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	
Butterfly Life Cycles	✓	✓	✓	✓							✓	✓	✓	✓
Soil Science!	✓	✓	✓	✓							✓		✓	
Recycling Works	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Scavenger Hunt	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
Solids, Liquids, and Gases			✓	✓	✓	✓					✓		✓	✓
Rocks			✓	✓	✓	✓					✓		✓	✓
Mapping Adventure				✓	✓	✓	✓	✓	✓	✓		✓	✓	
Subsurface Investigations						✓	✓	✓	✓	✓	✓		✓	
Weldon Spring Site Cleanup and Radiation Study						✓	✓	✓	✓	✓	✓		✓	✓
Renewable Energy						✓	✓	✓	✓	✓		✓	✓	✓
Food Chains and Food Webs (offsite alternative)				✓	✓	✓	✓				✓			✓

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The Weldon Spring Site is managed by the U.S. Department of Energy Office of Legacy Management